

ABSTRACT OF THE DISCLOSURE

A delta-phase detection method for real-time identifying a burst sequence in a received signal. The delta-phase detection method calculates phase differences between every two consecutive samples of the received signal, and counts the number of successive phase differences that are within a predetermined allowable detecting range. The end of the burst sequence is detected if the counting number is within a valid counting range. The valid counting range is determined according to an expected duration of the burst sequence. The frequency of the burst sequence can be calculated by a simple linear equation. A delta-phase detection system is also provided in the present invention, comprising a band pass filter, a delta-phase calculator, a low pass filter, and a flat line detector. The delta-phase detection system can be easily implemented in a digital signal processor of a mobile station to identify the FCCH burst sequence and compute the burst frequency.